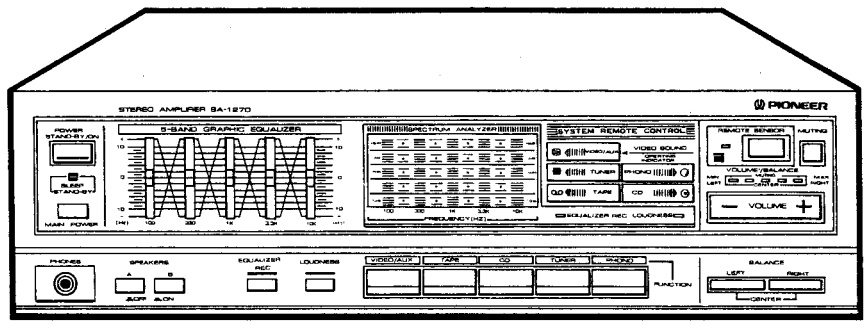
Operating Instructions

STEREO AMPLIFIER
SA-1270
SA-1270(A)



Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE

[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure area. This is for your security.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

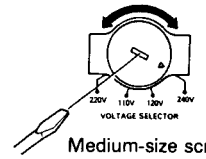
ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

LINE VOLTAGE SELECTOR SWITCHES

Only multi-voltage models are provided with these switches. U.S., Canadian, European, U.K., and Australian models are not provided with these switches.

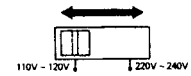
The line voltage selector switches are on the rear panel. Before your model is shipped from the factory, these switches are set to the power requirements of the destination. Check that they are set properly before plugging the power cord into the AC outlet. If the voltage is not properly set or if you move to an area where the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-size screwdriver.
2. Insert the screwdriver into the groove on the voltage selector, and adjust so that the tip of the arrow points to the voltage value of your area.



Medium-size screw driver

Set the voltage selector for the voltage in your area.



PIONEER®

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The operating instructions should be retained for future reference.

HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION — The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.

VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES — An outdoor antenna should be located away from power lines.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

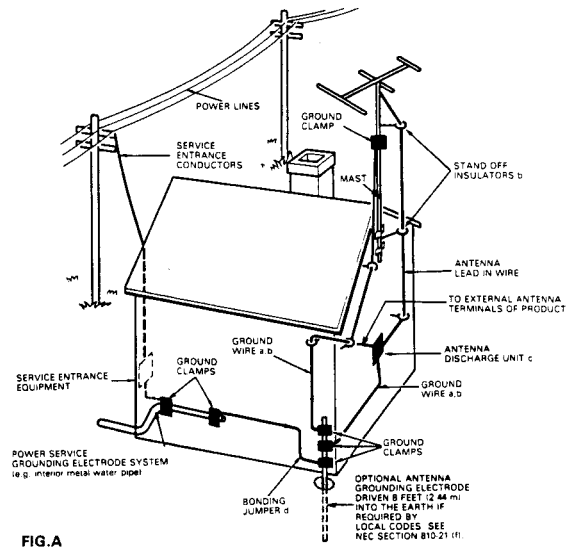

POWER LINES
GROUND CLAMP
SERVICE ENTRANCE CONDUCTORS
MAST
STAND OFF INSULATORS b
ANTENNA LEAD IN WIRE
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
GROUND WIRE a,b
ANTENNA DISCHARGE UNIT c
GROUND CLAMPS
SERVICE ENTRANCE EQUIPMENT
GROUND WIRE a,b
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
BONDING JUMPER d
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES SEE NEC SECTION 810-21 (f).

FIG.A

a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger as ground wire.

b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.

c) Mount antenna discharge unit as closely as possible to where lead-in enters house.

d) Use jumper wire not smaller than No.6 AWG (13.3 mm²) copper or equivalent when separate antenna-grounding electrode is used.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off. Disconnect the wall plug when the equipment is not in (regular) use, e.g. when on vacation.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Equipment sold in the U.K. is not supplied with a power plug.

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FEATURES

High power output of 105 W + 105 W

The following operations are possible using the accessory remote control unit:

- **Power ON/OFF**
- **Volume UP/DOWN**
- **Muting ON/OFF**
- **Function selection**
- **Tuner station selection (Model SA-1270 only)**
- **Compact disc player operation**
- **SLEEP timer ON/OFF**

Includes a 5-band graphic equalizer and an LED spectrum analyser.

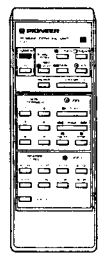
Built-in sleep timer.

BEFORE USING THIS COMPONENT

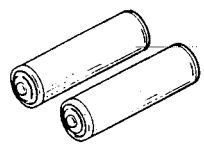
Check for presence of all accessories

[SA-1270]

Remote control unit ... 1
(CU-SA001)

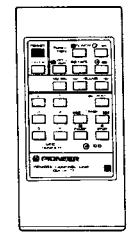


Dry Batteries (Size AAA/R03) ... 2

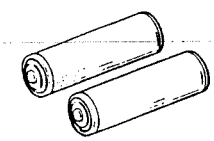


[SA-1270(A)]

Remote control unit ... 1
(CU-SA002)



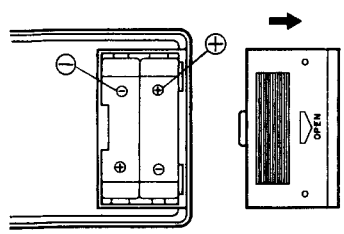
Dry batteries (Size AA/R6) ... 2



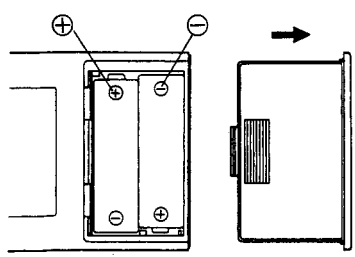
Loading dry batteries in the remote control unit

(1) Open the battery compartment lid on the reverse panel, and insert the accessory batteries taking care to arrange the polarities in the directions shown.

[For SA-1270's remote control]



[For SA-1270(A)]



(2) Replace the battery compartment lid.

NOTE:

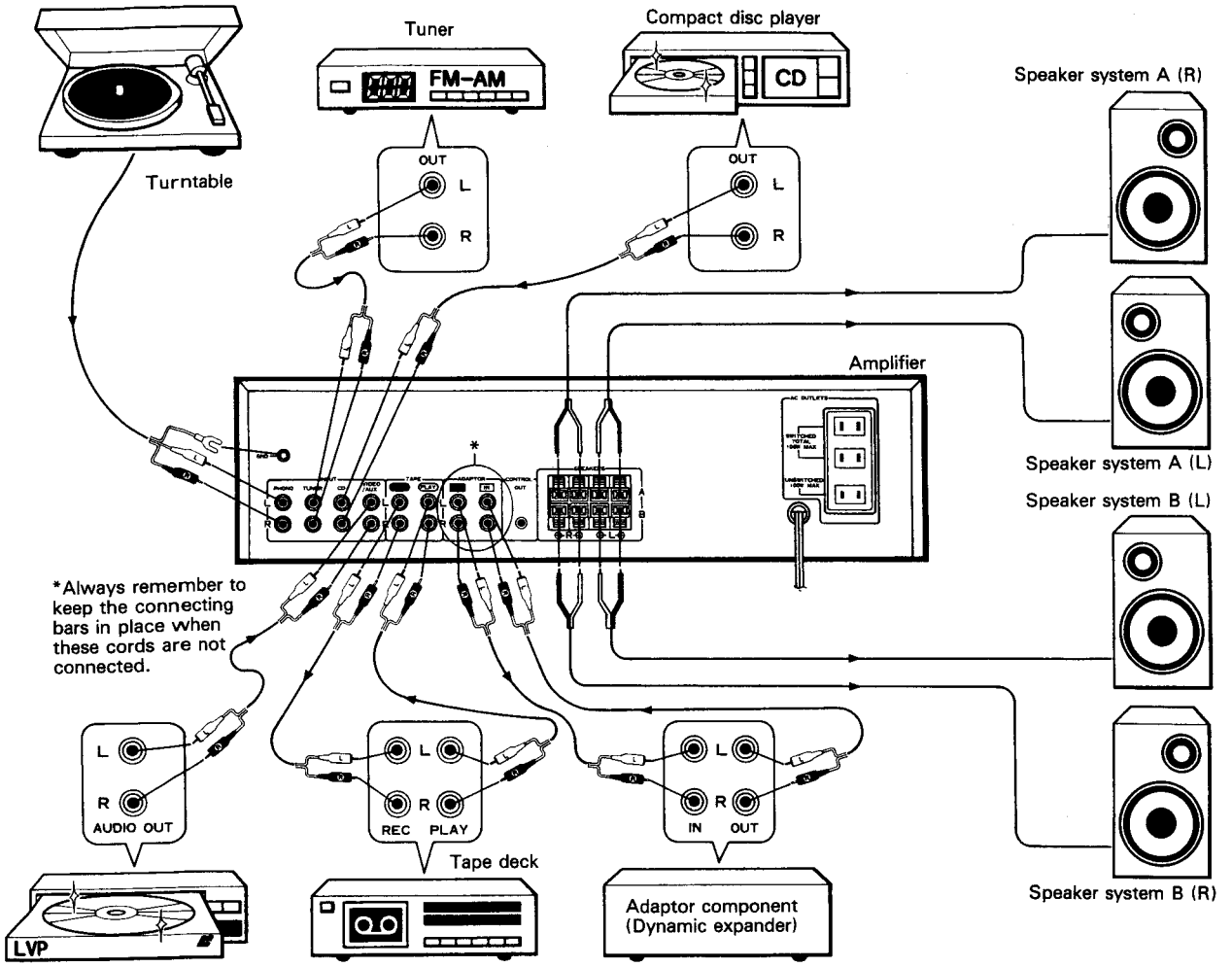
- *When not using the remote control unit for an extended period (one month or more), remove the batteries in order to prevent damage from leakage. If battery leakage does occur, use a rag to carefully wipe away the leaked fluid, and insert new batteries.*
- *Do not lay books, or other objects on top of the remote control unit, since the keys may be depressed, causing early depletion of the batteries.*
- *If the remote control unit's operating distance becomes noticeably shortened, the batteries are likely depleted. Replace them with new batteries.*

If dry batteries are misused, leakage and rupture may occur. Be sure to note the following precautions:

- *Insert batteries correctly with polarities as shown in the diagram within the battery case.*
- *Do not mix fresh batteries with already used batteries.*
- *Batteries of the same size may differ in voltage depending on manufacturer. Do not mix batteries of differing make together.*
- *Both rechargeable and disposable batteries are available. Be sure to carefully read the precautionary items noted on the batteries you use.*

CONNECTIONS

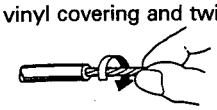
When connecting Pioneer system components, please refer to the operating instructions for the audio rack.



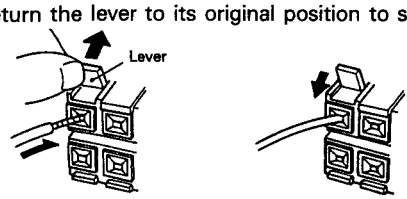
- Audio channel from video disc player or video cassette recorder.
- AUDIO/VIDEO selector (Pioneer VS-60, AVS-700) In this case, you cannot record audio onto a VCR connected to VS-60.

CONNECTING SPEAKER WIRES

1. Strip off the vinyl covering and twist the strands together.



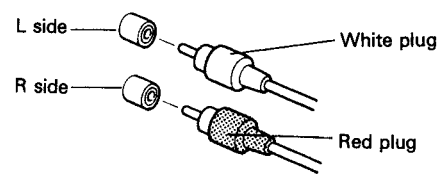
2. Raise the lever in the direction of the arrow and insert the exposed conductor into the hole.
3. Now return the lever to its original position to secure the cord.



NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

CONNECTING INPUT/OUTPUT CORDS

Connect the white plug to the L (left) side, and the red plug to the R (right) side. Be sure to push the plugs in securely.



About Speaker Impedance

When speaker systems are connected to only one of the SPEAKERS A, B terminals, such speakers should have rated impedance in the range of 8 — 16 ohms.

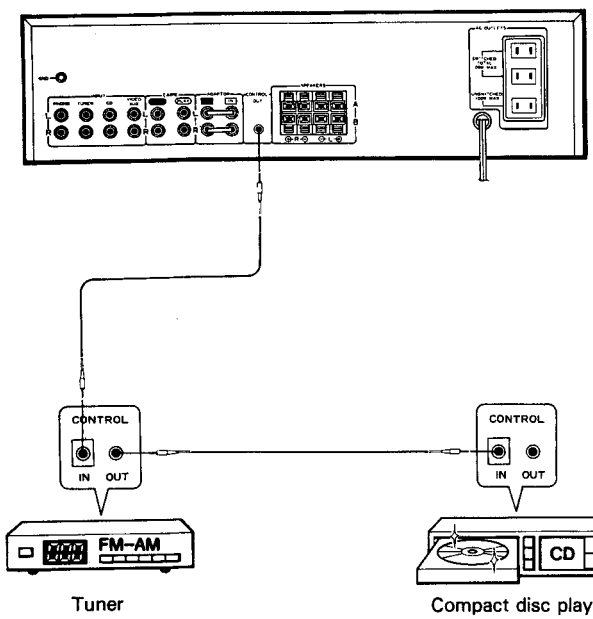
CONNECTING THE CONTROL OUT TERMINAL

Connect this terminal with using Pioneer components with the SR mark.
In this way, the signals received from the remote control unit will be transmitted to the other components with the SR mark.
Connect to the CONTROL IN terminal of the other components you use.

- Use the accessory control cords supplied with the SR marked components.
- Be sure to insert the plugs securely.

NOTE:
You cannot control the unit using the remote controller by simply making htese connections. Be sure to connect the output cords as well.

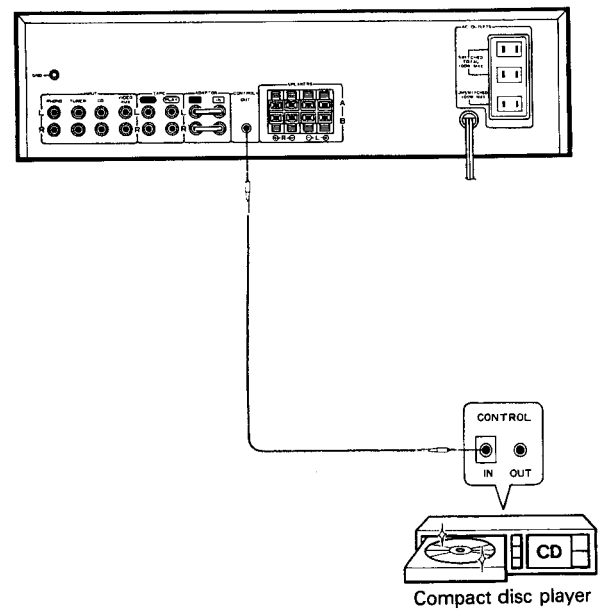
SA-1270 rear panel



Tuner

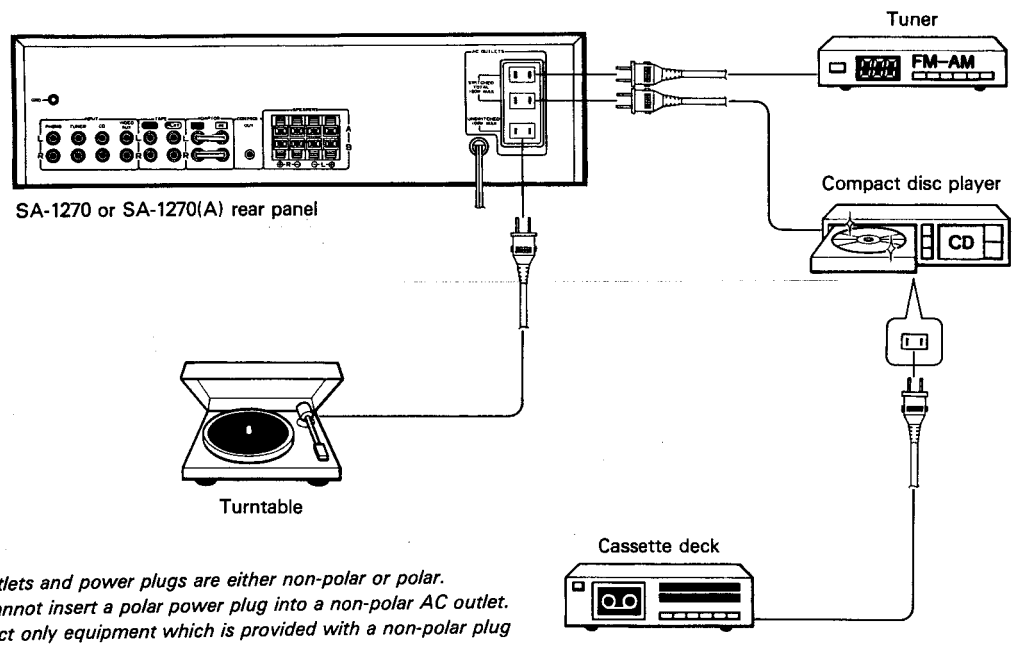
Compact disc player

SA-1270(A) rear panel



Compact disc player

CONNECTING THE POWER CORD (examples)



Note:
AC outlets and power plugs are either non-polar or polar.
You cannot insert a polar power plug into a non-polar AC outlet.
Connect only equipment which is provided with a non-polar plug to a non-polar AC outlet.

PANEL FACILITIES

FRONT PANEL

MAIN POWER switch

Press to turn power to the unit ON/STAND-BY and OFF.

POWER switch

- When the MAIN POWER switch is ON, this unit's power switch can be turned ON/STAND-BY.
- Each time the switch is pressed the power switches between ON and STAND-BY, and when in the STAND-BY mode, the indicator lights.
- The accessory remote control unit can also be used to operate this switch's ON/STAND-BY function.
- The POWER switch selects the transformer's secondary even in STAND-BY position. The unit's circuitry will work as long as the MAIN POWER switch is ON, and the power cord is connected to a power outlet.
- When not using the unit for a long period, turn OFF this switch.

MUTING switch

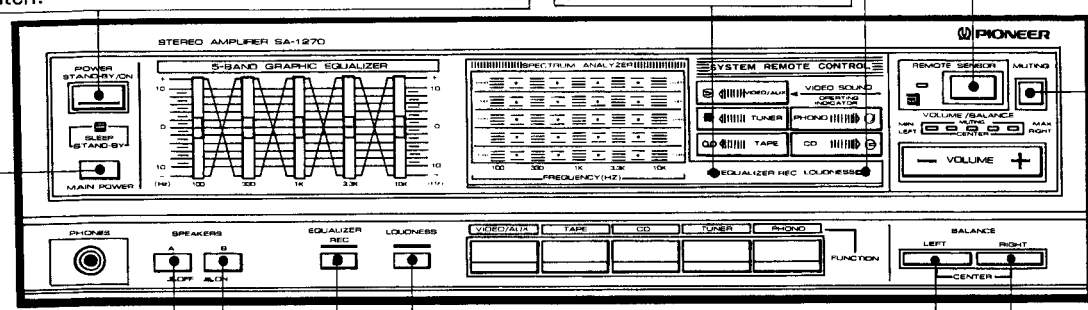
Use to temporarily cut out all audio signals.
When the mode display shows the flashing VOLUME/BALANCE indicator, the function is ON, and all sounds are cut off.
When turned OFF, the sound returns to its previous level.
The muting ON/OFF function can also be operated by the accessory remote control unit.

REMOTE SENSOR indicator

This indicator lights when a signal from the remote control unit is received.

LOUDNESS indicator

EQUALIZER REC indicator



SPEAKERS A selector switch

Use this switch to listen to the speaker systems connected to the SPEAKERS A terminals.
[ON] — Depressed position: Sound is heard from the speaker systems.
[OFF] — Released position: No sound is heard from the speaker system. Set to this position when listening with headphones.

SPEAKERS B selector switch

Use this switch to listen to the speaker systems connected to the SPEAKERS B terminals.
[ON] — Depressed position: Sound is heard from the speaker systems.
[OFF] — Released position: No sound is heard from the speaker system. Set to this position when listening with headphones.

NOTE:
When the speaker system is connected to only one speaker terminal (A or B) and both A and B selector switches are ON, there will be no sound.
Turn ON only the selector to which the speaker system is connected.

EQUALIZER REC selector switch

When performing recording, this switch allows you to choose the sound before it is compensated with the graphic equalizer, or the sound produced after equalizer compensation.
[ON] (depressed position): Set to this position to record the sound produced after equalizer compensation.
[OFF] (released position): Set to this position to record the sound produced before equalizer compensation.

BALANCE control

Normally, the BALANCE indicator of the mode display is set to the center position. By pressing the [L] and [R] controls simultaneously, the balance will be set to the center position. If the sound is unbalanced to one side, adjust in the following way: If the sound is too loud on the right side, press [L], if too loud on the left side, press [R].

LOUDNESS switch

Use to improve sound quality when listening at low sound levels. The function is on when the LOUDNESS indicator is lighted. Low and high frequencies will be augmented, thus producing dynamic sound even at low volume levels.

GRAPHIC EQUALIZER Controls

These controls can be used to emphasize or de-emphasize sounds in the frequency bands 100 Hz, 330 Hz, 1 kHz, 3.3 kHz, and 10 kHz, thus allowing you to control tone quality. The center position of each control is the normal (flat) setting; when raised above the center position, the control's frequency band is emphasized; when lowered, the band is de-emphasized.

Spectrum Analyzer

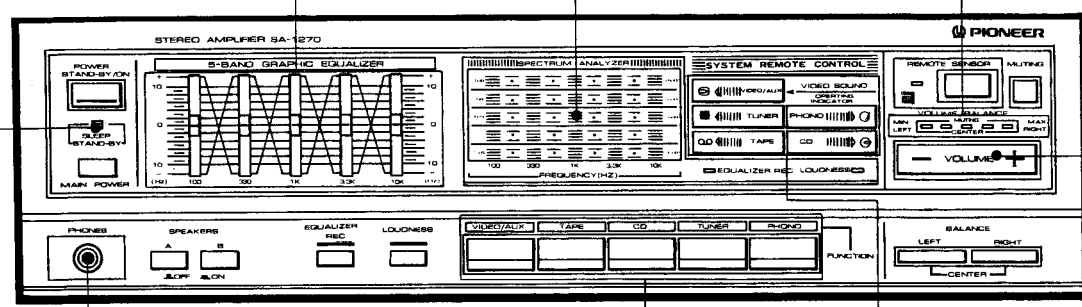
This display shows the condition of sound signals compensated with the graphic equalizer controls.
(Because the level indicator is connected to the input side, the indication does not change when the VOLUME control is turned.)

VOLUME control

Use to adjust sound volume.
[+] — Sound volume is increased.
[−] — Sound volume is decreased.
Adjustment can also be performed with the accessory remote control unit.

VOLUME/BALANCE indicator

- Normally, this indicator functions to display the sound volume level.
- When the balance control is pressed, the indicator switches to display the right-left sound balance. After several seconds, the indicator returns automatically to the volume display.
- When the MUTING switch is ON, the indicator flashes.



PHONES jack

When using headphones, insert their plug into this jack.

SLEEP/STAND-BY indicator

This indicator lights or flashes when the accessory remote control unit is used to turn the SLEEP key or POWER key. When the SLEEP key is ON, the indicator will light. (Initially it will flash slowly, then gradually become faster.)
60 minutes after the sleep timer is turned ON, the power switch will be turned STAND-BY automatically.

This component features a built-in microcomputer which will recall the last-set positions of the following switches for up to about one week after the main power switch is turned OFF. As a result, when the power is turned ON again, the previously set positions will be recalled automatically:

- FUNCTION switch
- BALANCE control
- MUTING switch
- VOLUME control
- LOUDNESS switch

When the unit is not used for more than a week, the memorized setting positions will be erased, and returned to the the following settings:

- VOLUME control ..... minimum
- LOUDNESS, MUTING switches ..... OFF
- BALANCE control ..... CENTER
- FUNCTION switches ..... TUNER

FUNCTION indicators

These indicators light to show the setting of the FUNCTION switches.

FUNCTION switches

Use to select playback source.
[PHONO] — Press when listening to record playback on a turntable.
[TUNER] — Press when listening to AM or FM broadcasts with a tuner.
[CD] — Press when listening to compact disc playback with a CD player.
[TAPE] — Press when listening to tape playback with a tape deck.
[VIDEO/AUX] — Press when listening to programs from a component connected to the VIDEO/AUX terminals.

Remote Control Unit (SA-1270 – CU-SA001)

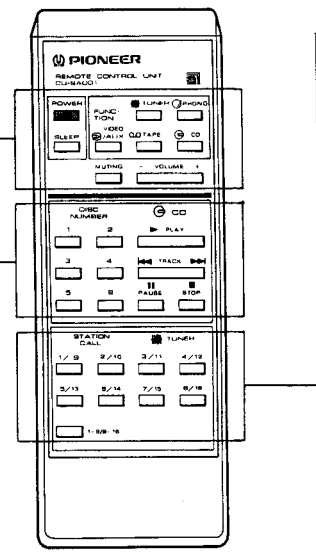
[Amplifier operating section]

POWER key:
Use to switch the power ON/STAND-BY.
SLEEP key:
Use to switch the SLEEP TIMER ON/STAND-BY. Sixty minutes after the SLEEP TIMER is switched ON, the amplifier power will turn STAND-BY automatically.

FUNCTION keys:
Use to select the FUNCTION switches.
MUTING key:
Use to select the MUTING ON/OFF.
VOLUME key:
Use to adjust the sound volume UP/DOWN.

[Compact disc player operating section]

DISC NUMBER keys (1 – 6)
Designates the number of the disc to be played. (Used only for a multi-play CD player.)
PLAY key:
Press to begin playback or to release the player from the pause mode.
TRACK key:
Use to skip to the beginning of the next track, or to return to the previous track.
PAUSE key:
Use to temporarily stop playback, and to release from the pause mode.
STOP key:
Press to stop playback.



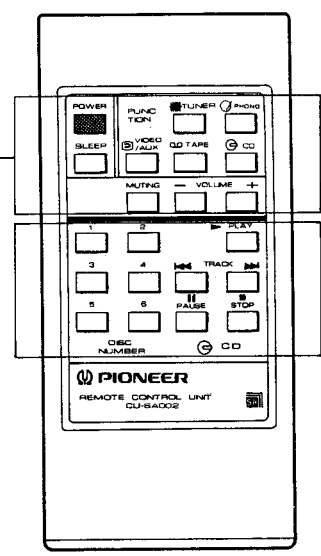
[Tuner operating section]

STATION CALL keys (1 – 16):
Use to select broadcasting stations.
STATION MODE select key (1–8/, 9–16):
Use to select the number of STATION CALL keys. Each time this switch is pressed, the STATION CALL keys switches alternately between 1 – 8 and 9 – 16.

Remote Control Unit (SA-1270(A) – CU-SA002)

[Amplifier operating section]

POWER key:
Use to switch the power ON/STAND-BY.
SLEEP key:
Use to switch the SLEEP TIMER ON/STAND-BY. Sixty minutes after the SLEEP TIMER is switched ON, the amplifier power will turn STAND-BY automatically.
FUNCTION keys:
Use to select the FUNCTION switches.
MUTING key:
Use to select the MUTING ON/OFF.
VOLUME key:
Use to adjust the sound volume UP/DOWN.



[Compact disc player operating section]

DISC NUMBER keys (1 – 6)
Designates the number of the disc to be played. (Used only for a multi-play CD player.)
PLAY key:
Press to begin playback or to release the player from the pause mode.
TRACK key:
Use to skip to the beginning of the next track, or to return to the previous track.
PAUSE key:
Use to temporarily stop playback, and to release from the pause mode.
STOP key:
Press to stop playback.

REAR PANEL

PHONO terminals

Turntable ground terminal

TUNER terminals

CD terminals

VIDEO/AUX terminals

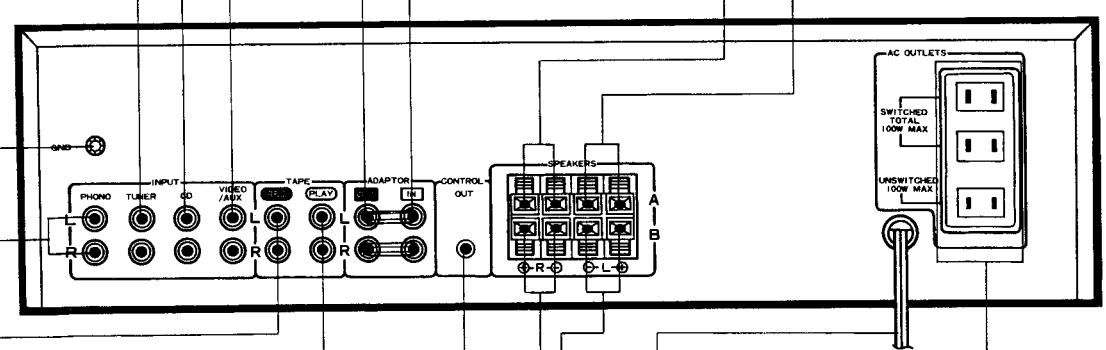
ADAPTOR terminals (OUT)

ADAPTOR terminals (IN)

NOTE:
The ADAPTOR terminals are used when connecting an adaptor unit. When not connecting an adaptor unit, be sure to install the connecting bars. If the connecting bars are removed, sound will no longer be emitted from the speakers.

SPEAKERS A terminals (left channel)

SPEAKERS A terminals (right channel)



CONTROL OUT terminal

SPEAKERS B terminals (right channel)

SPEAKERS B terminals (left channel)

TAPE PLAY terminals (playback)

TAPE REC terminals (recording)

Power cord

Connect this cord to a wall outlet, or the power outlet of an audio timer.

AC OUTLETS (SWITCHED)

Power supplied through these outlets is turned on and off by the amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

AC OUTLET (UNSWITCHED)

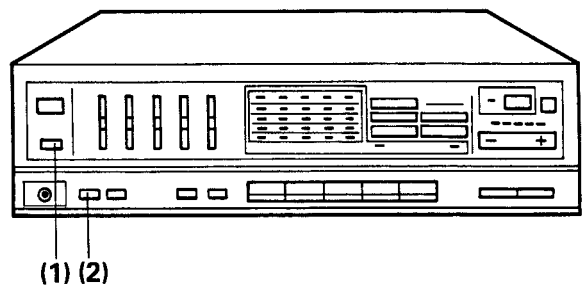
Power flows continually to this outlet, regardless of whether the amplifier is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.
The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g., when on vacation.

NOTE:
Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS in order to avoid overheating or fire risk.

OPERATIONS

BEFORE BEGINNING OPERATIONS

Set the controls and switches as follows:

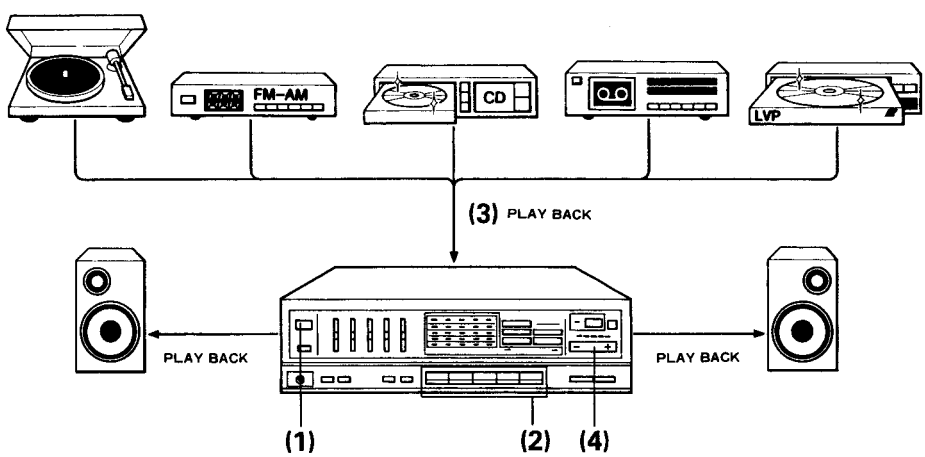


(1) Set the MAIN POWER switch to ON.

(2) Set the SPEAKERS A switch to ON.

When the speaker system is connected to the speakers A terminals

OPERATION PROCEDURES



(1) Turn on power to this unit and to the other equipment to be used.

(2) Press the FUNCTION switch

Use to select playback source.

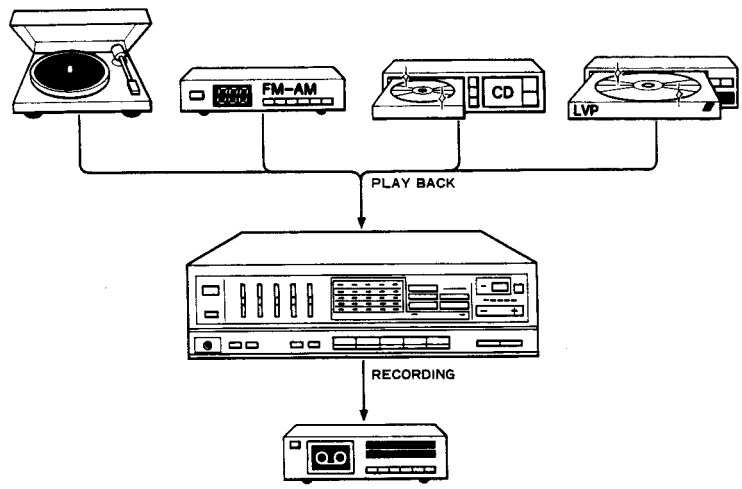
- When listening to a record: Press [PHONO].
- When listening to an AM or FM broadcast: Press [TUNER].
- When listening to a tape: Press [TAPE].
- When listening to a compact disc: Press [CD].
- When listening to programs from equipment connected to the VIDEO/AUX terminals: Press [VIDEO/AUX].

(3) Operate equipment to begin playback.

(4) Adjust playback volume with the VOLUME control on this unit.

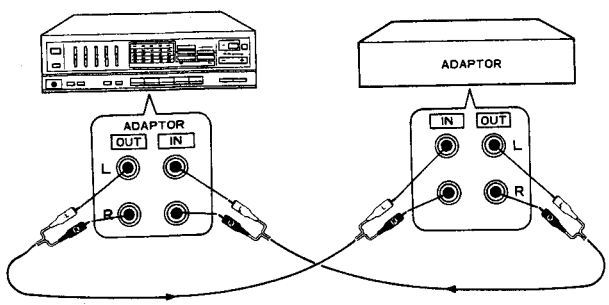
RECORDING TAPES:

- While listening to playback on equipment connected to the rear panel terminals , you can record these same sounds on tape merely by setting your tape deck to the recording mode.
- The sound compensated with the built-in graphic equalizer can be recorded. In this case, set the EQUALIZER REC selector switch to the ON position.
- Refer to the operating instructions for your tape deck for proper operating procedures.



TO USE THE COMPONENT CONNECTED TO THE ADAPTOR TERMINALS:

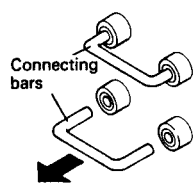
By connecting an adaptor component (dynamic expander), source sounds (from records, tapes, AM/FM broadcasts, etc.) can be heard with tone compensation.



[Connection]

(1) Set the MAIN POWER switch to OFF.

(2) Remove the two connecting bars from the adaptor terminals.



(3) Connect the adaptor component in accordance with the connection diagram in the section "Connections."

[Operation]

(1) Play back the source.

(2) Operate the adaptor component

The sound compensated with the connected adaptor component can be recorded on a tape deck.

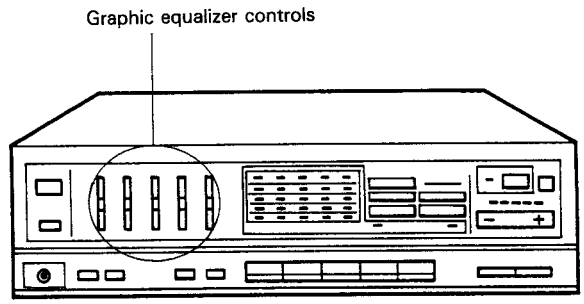
NOTE:
Be sure to perform this operation with the adaptor component's power switch in the ON position. Even when not using the adaptor component, its power switch must be left ON. If the adaptor component is switched OFF, no sound will be produced, or the playback sound will be distorted.

SOUND COMPENSATION (Using the Graphic Equalizer)

The graphic equalizer controls can be used to compensate sound tone in five frequency bands from high range to low. In this way, you can emphasize (or de-emphasize) the sounds of particular instruments or voices in order to produce your own desired sound when performing playback and recording. In addition, the controls can be used to compensate playback sound for listening room conditions.

[Examples of adjustments for each frequency band]

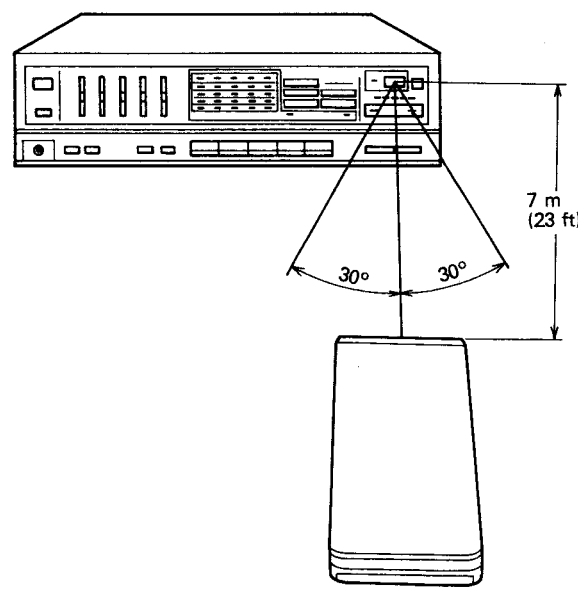
100Hz: Use to increase the impact of bass viol and drum, and male voices.
330 Hz: Use to emphasize female voices.
1 kHz: Use to single out lead guitar sounds.
3.3 kHz: Use to augment string instruments.
10 kHz: Use to make the sounds of cymbals more brilliant.



Notes regarding use of the remote control unit.

The accessory remote control unit can be used to perform operations from your listening position.
When using the remote control unit, point it at the remote sensor.
The range within which the remote control unit can be used is a distance of about 7 m, within an angle of about 30° to left and right of the center of the this unit.

- Even if the remote control is used within the range limits noted above, it may not operate properly if furniture or other obstructions are between the remote control unit and the amplifier, or if the signal angle is poor.
- When the this unit is used near other appliances emitting infrared rays, or if another infrared remote control unit is used nearby, the amplifier may malfunction. Or the contrary, if this unit's accessory remote control unit is used near another appliance controlled by infrared rays, that other appliance may malfunction.
- The life of the batteries used in the remote control unit varies greatly depending on the frequency of use, but as the batteries become depleted, the operating range will become shorter. If a signal is not received by this unit when the remote control keys are depressed, or if the operating range becomes noticeably shortened, replace the batteries with new ones.



TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Probable Cause	Remedy
No power supplied to unit	• Power plug is disconnected from outlet. • The component's power plug has been plugged into another component's power outlet (e.g. timer, etc.), but power to that unit is disconnected.	• Insert plug securely in outlet. • Turn on power to other component.
No sound	• Connecting cords are disconnected from terminals, or connected incorrectly. • Terminals or connecting cords' pin plugs are dirty. • The connecting bar(s) is disconnected from the adaptor terminals. • The MUTING switch is set to ON. • The function switch selected does not match the component being played back. • Operation of other components is mistaken.	• Connect securely. • Clean terminals and plugs. • Replace the connecting bar properly. • Turn switch OFF. • Set switches correctly (PHONO, TUNER, CD, VIDEO/AUX, TAPE). • Consult the operating instructions for the other components.
No sound from one speaker	• Connecting cords or speaker wires are disconnected to that side. • BALANCE control have been adjusted to one side.	• Connect securely. • Adjust BALANCE control to center position.
Can't record tapes	• Connections are mistaken. • Operation of tape deck is mistaken.	• Reconnect properly. • Consult the operating instructions for the tape deck.

INFORMATION TO USER [FOR U.S. MODEL]

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate this equipment with respect to the receiver
- move this equipment away from the receiver
- plug this equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems".
This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

The above instructions apply only to units which will be operated in the United States.

SPECIFICATIONS

Amplifier Section

Continuous average power output is 105 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.05% total harmonic distortion.

Input (Sensitivity/Impedance)
- PHONO ..... 2.5 mV/47 kΩ
- TUNER, CD, VIDEO, TAPE PLAY, ADAPTOR IN ..... 150 mV/47 kΩ

Phono Overload Level (T.H.D. 0.1%, 1 kHz) 100mV

Output (Level/Impedance)
- TAPE REC, ADAPTOR OUT ..... 150 mV/2.2 kΩ

Frequency Response
- PHONO 20 Hz to 20 kHz ..... ±1 dB
- TUNER, CD, VIDEO, ADAPTOR IN, TAPE PLAY 20 Hz to 50 kHz ..... $^{+1}_{-2}$ dB

Graphic equalizer
- 100 Hz ..... ±10 dB
- 330 Hz ..... ±10 dB
- 1 kHz ..... ±10 dB
- 3.3 kHz ..... ±10 dB
- 10 kHz ..... ±10 dB

Loudness Control (Volume control set at −40 dB position)
- 100 Hz ..... +7 dB
- 10 kHz ..... +4 dB

Hum and Noise (IHF, short circuited, A network)
- PHONO ..... 72 dB
- CD, VIDEO, ADAPTOR IN, TUNER, TAPE PLAY ..... 90 dB

Miscellaneous

Power Requirements
- U.S., Canadian models ..... AC 120 V, 60 Hz
- Other destination models .. ~AC 110 V/120 V/220 V/240 V (switchable), 50/60 Hz

Power Consumption
- U.S. model ..... 220 W (UL)
- Canadian model ..... 486 VA
- Other destination models ..... 220 W

Dimensions ..... 420 (W) × 120 (H) × 310 (D) mm
16-1/2 (W) × 4-3/4 (H) × 12-1/4 (D) in

Weight (without package) ..... 8 kg (17 lb 10 oz)

Furnished Parts

Remote control unit 1
Batteries AAA/R03 (SA-1270) 2
AA/R6 (SA-1270(A)) 2
Operating Instructions 1

NOTE:
- *Specifications and design subject to possible modification without notice due to improvements.*
- **Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Claims for Amplifier.*